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Claims

1. An oscillator circuit (1), at least comprising at least one oscillator device (100) having at least one oscillator bias contact (Vcm), a bias source (V bias) having a source contact connected to said oscillator bias contact, and a signal shaper device (101) connected to an output of the oscillator device (100), said signal shaper device being arranged for clipping the amplitude of the output signal of the oscillator device to a predetermined amplitude;

said bias source having a first state in which a high level of energy (V1) is provided at said source contact, and a second state in which a lower level of energy (V2) is provided at said source contact, wherein the high level of energy at said source contact will keep the oscillator device in an oscillating state, whereas the lower level of energy will result in a decreasing amplitude of the signal provided by the oscillator device (100) and wherein switching means (S; Mbias 2) are provided for switching the bias source from the first state to the second state and from the second state back to the first state before the decreasing amplitude of the signal provided by the oscillator device (100) decreases below an amplitude at which the limiter device stops functioning properly.

2. An oscillator circuit (1) as claimed in claim 1, wherein said bias source is a switched DC source which in use provides a bias signal varying between a first level and a second level.

3. An oscillator circuit (1) as claimed in claims 1 or 2, wherein the lower level of energy (N2) is substantially zero.

4. An oscillator circuit (1) as claimed in claim 3, wherein said signal shaper device comprises at least one limiter device (101).

5. An oscillator circuit (1) as claimed in claim 8, wherein said signal shaper device comprises a band-pass filter device.

6. An oscillator circuit (1) as claimed in any one of the preceding claims, further comprising:

a bias control circuit (Meas,Tr,S) for switching the bias source (Vbias) on and off depending on a signal outputted by the oscillator device (100).

7. An oscillator circuit (1) as claimed in any one of the preceding claims, wherein said oscillator device (100) at least comprises at least one electrical device with a positive feedback loop.

8. An oscillator circuit (1) as claimed in any one of the preceding claims, wherein said oscillator device (100) at least comprises at least one resonator body.

9. An oscillator circuit (1) as claimed in any one of the preceding claims, further comprising a negative resistance device (102) at least comprising at least one transistor device (Mresa,Mresb).

10. An oscillator circuit (1) as claimed in claim 4, wherein said limiter (101) at least comprises at least one differential amplifier (Mlima,Mlimb) with:
at least one input contact connected to at least one oscillator output contact (inp), and at least one output contact (outp) connected to a load.

11. An oscillator circuit (1) as claimed in claim 10, wherein said load comprises:
at least one resistor (Rlima) connecting at least one of said at least one output contacts (outp) to a power supply (Vcc).

12. An oscillator circuit (1) as claimed in any one of the claims 4-11, wherein said limiter (101) at least comprises at least one transistor device (Mlima, Mlimb).

13. An oscillator circuit as claimed in any one of the preceding claims, wherein said bias source comprises a bias voltage source.

14. An oscillator circuit as claimed in any one of the preceding claims, wherein said bias source comprises a bias current source.

15. A wireless electronic device including an oscillator circuit (1) as claimed in any one of claims 1-14.

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16. A method for reducing the power consumption of an oscillator circuit including an oscillator device and a bias source, said method at least using a bias source having a first state in which a high level of energy is provided to the oscillator circuit and a second state in which a lower level of energy or no energy is provided to the oscillator circuit, wherein the bias source is switched from the first state to the second state if a first predetermined criterion is satisfied and wherein the bias source is switched back to the first state if a predetermined second criterion is satisfied.